

## BOOK NOTICES

RICE, ELROY L. 1995. **Biological Control of Weeds and Plant Diseases. Advances in Applied Allelopathy.** (ISBN 0-8061-2698-1, hbk.). University of Oklahoma Press, 1005 Asp Avenue, Norman, OK 73019, (405) 325-5111. \$55.00. 448 pp, 14 figures.

*"Biological Control of Weeds and Plant Diseases. Advances in Applied Allelopathy,* is a timely study, by a world-renowned authority, of the production, by plants and microorganisms, of compounds that affect the growth, health, and population biology of other plants and microorganisms. Elroy L. Rice focuses on new developments in allelopathy in agriculture and forestry, where the deleterious side effects of synthetic pesticides necessitate more widespread use of biological control techniques."

"Summarizing the explosion of knowledge during the last decade, Rice adds his own insights to the various topics reviewed. He tells how, in many cases, biological control can be substituted for chemical control with no decrease in crop yields, and how, in other cases, only a minimum of research remains to be done before the data are conclusive."

The following chapters are included: 1) Introduction and Allelopathic Effects of Crop Plants on Crop Plants; 2) Allelopathic Effects of Weeds on Crop Plants; 3) Other Roles of Allelopathy in Agriculture; 4) Allelopathy in the Biological Control of Weeds; 5) Allelopathy in Bacterial and Fungal Diseases of Plants; 6) Allelopathy in the Biological Control of Plant Diseases: Host Plants A–M; 7) Allelopathy in the Biological Control of Plant Diseases: Host Plants N–Z; 8) Allelopathy in Forestry.

FREY, KENNETH J., ED. 1995. **Historical Perspectives in Plant Science.** (ISBN 0-8138-2284-X, hbk.). Iowa State University Press, 2121 S. State Avenue, Ames, IA 50014-8300, 1-800-862-6657. \$44.95. 216 pp., 6 × 9, illus.

*Historical Perspectives in Plant Science* is a compilation of lectures presented at the 1991 Plant Science Lecture Series sponsored by the Iowa State University Departments of Agronomy, Botany, Forestry, Horticulture, and Plant Pathology. The lecture series brought together eight scholars who have been called the "makers of plant science history" over the past half century.

The subject matter covered is restricted to higher plants with some agricultural importance. Included is a general overview of plant science, development of the history of plant physiology, plant pathology, quantitative genetics, cytogenetics, molecular biology, and the history of plant breeding methodology and accomplishments. The eight chapters include: 1) Biological Revolutions of Thought during the Twentieth Century, by G. Ledyard Stebbins; 2) Historical Developments in Biological Nitrogen Fixation, by Robert H. Burris; 3) Historical Perspectives on Contributions of Quantitative Genetics to Plant Breeding, by Bruce Griffing; 4) Contributions of Plant Pathology to the Biological Sciences, by Arthur Kelman; 5) Perspectives on Germplasm Manipulation, by Ralph Riley; 6) Current Perspectives: The Impact of Biotechnology on Plant Improvement, by Charles S. Levings III, Kenneth L. Korth, and Gerty Cori Ward; 7) Plant Breeding—A Vital Part of Improvement in Crop Yields, Quality, and Production Efficiency, by John W. Dudley; and 8) Historical Perspectives on Plant Breeding Methodology, by Neal F. Jensen.